

WHAT IS CLAIMED IS:

1           Claim 1. A dietary supplement for supplementing the  
2   nutritional needs of pre-perimenopausal women comprising  
3   about 200 to about 500 mg calcium, about 100 to about 200  
4   mg magnesium, about 0.5 to about 1.5 mg boron, about 0.5  
5   to about 1.5 mg copper, about 2 to about 2.6 mg  
6   manganese, about 10 to about 13 mg zinc, about 200 to  
7   about 300 IU vitamin D, about 12 to about 18 mg iron,  
8   about 400 to about 440  $\mu$ g folic acid, about 2 to about 10  
9    $\mu$ g vitamin B<sub>12</sub>, about 50 to about 100 mg vitamin B<sub>6</sub>, about  
10  50 to about 100  $\mu$ g chromium, about 100 to about 200 IU  
11  vitamin E, about 100 to about 1000 mg vitamin C and about  
12  8 to less than 50 mg phytoestrogen in admixture with a  
13  biologically acceptable carrier.

1           Claim 2. The dietary supplement of claim 1 which  
2   further comprises from about 400 to about 1200  $\mu$ g RE  
3   preformed vitamin A and mixed carotenoids.

1           Claim 3. The dietary supplement of claim 1 wherein  
2   said supplement is formulated in tablet, powder, liquid,  
3   capsule or gel form, or dietary bar.

1           Claim 4. The dietary supplement of claim 3 wherein  
2   said supplement is formulated for once daily  
3   administration.

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1           Claim 5. The dietary supplement of claim 1  
2   comprising about 200 to about 300 mg calcium, about 100  
3   to about 150 mg magnesium, about 0.7 to about 1.3 mg  
4   boron, about 0.7 to about 1.3 mg copper, about 2 to about  
5   2.4 mg manganese, about 10 to about 12 mg zinc, about 200  
6   to about 250 IU vitamin D, about 16 to about 18 mg iron,  
7   about 400 to about 420  $\mu$ g folic acid, about 2 to about 4  
8    $\mu$ g vitamin B<sub>12</sub>, about 50 to about 65 mg vitamin B<sub>6</sub>, about  
9   50 to about 75  $\mu$ g chromium, about 100 to about 150 IU  
10   vitamin E, about 100 to about 150 mg vitamin C and about  
11   8 to about 12 mg phytoestrogen in admixture with a  
12   biologically acceptable carrier.

1           Claim 6. The dietary supplement of claim 1  
2   comprising about 200 mg calcium, about 100 mg magnesium,  
3   about 1 mg boron, about 1 mg copper, about 2 mg  
4   manganese, about 10 mg zinc, about 200 IU vitamin D,  
5   about 18 mg iron, about 400  $\mu$ g folic acid, about 2  $\mu$ g  
6   vitamin B<sub>12</sub>, about 50 mg vitamin B<sub>6</sub>, about 50  $\mu$ g chromium,  
7   about 100 IU vitamin E, about 100 mg vitamin C and about  
8   10 mg phytoestrogen in admixture with a biologically  
9   acceptable carrier.

1           Claim 7. A dietary supplement for supplementing the  
2   nutritional needs of perimenopausal and menopausal women  
3   comprising from about 200 to about 1000 mg calcium; from  
4   about 100 to about 200 mg magnesium; from about 1.5 to

5 about 2.5 mg boron; from about 1.5 to about 2.5 mg  
6 copper; from about 2.4 to about 3.6 mg manganese; from  
7 about 12 to about 15 mg zinc; from about 300 to about 400  
8 IU vitamin D; from about 10 to about 15 mg iron; from  
9 about 400 to about 440  $\mu$ g folic acid; from about 2 to  
10 about 15  $\mu$ g vitamin B<sub>12</sub>; from about 50 to about 100 mg  
11 vitamin B<sub>6</sub>; from about 75 to about 200  $\mu$ g chromium; from  
12 about 200 to about 400 IU vitamin E; from about 200 to  
13 about 1000 mg vitamin C; and from about 10 to less than  
14 50 mg phytoestrogen in admixture with a biologically  
15 acceptable carrier.

1 Claim 8. The dietary supplement of claim 7 which  
2 further comprises from about 800 to about 1600  $\mu$ g RE  
3 preformed vitamin A and mixed carotenoids.

1 Claim 9. The dietary supplement of claim 7 wherein  
2 said supplement is formulated in tablet, powder, liquid,  
3 capsule or gel form, or dietary bar.

1 Claim 10. The dietary supplement of claim 7 wherein  
2 said supplement is formulated for once daily  
3 administration.

1 Claim 11. The dietary supplement of claim 7  
2 comprising from about 300 to about 400 mg calcium; from

3 about 100 to about 150 mg magnesium; from about 1.7 to  
4 about 2.3 mg boron; from about 1.7 to about 2.3 mg  
5 copper; from about 2.6 to about 3.4 mg manganese; from  
6 about 12 to about 14 mg zinc; from about 300 to about 350  
7 IU vitamin D; from about 13 to about 15 mg iron; from  
8 about 400 to about 420  $\mu$ g folic acid; from about 2 to  
9 about 6  $\mu$ g vitamin B<sub>12</sub>; from about 50 to about 65 mg  
10 vitamin B<sub>6</sub>; from about 75 to about 100  $\mu$ g chromium; from  
11 about 200 to about 300 IU vitamin E; from about 200 to  
12 about 300 mg vitamin C; and from about 12 to about 17 mg  
13 phytoestrogen in admixture with a biologically acceptable  
14 carrier.

1 Claim 12. The dietary supplement of claim 7 wherein  
2 said supplement comprises about 300 mg calcium, about 150  
3 mg magnesium, about 2 mg boron, about 2 mg copper, about  
4 3 mg manganese, about 12 mg zinc, about 300 IU vitamin D,  
5 about 15 mg iron, about 400  $\mu$ g folic acid, about 2  $\mu$ g  
7 vitamin B<sub>12</sub>, about 50 mg vitamin B<sub>6</sub>, about 75  $\mu$ g chromium,  
8 about 200 IU vitamin E, about 200 mg vitamin C, and about  
9 15 mg phytoestrogen.

1 Claim 13. A dietary supplement for supplementing  
2 the nutritional needs of post-menopausal women comprising  
3 about 200 to about 1500 mg calcium, about 150 to about  
4 250 mg magnesium, about 2.5 to about 3.5 mg boron, about  
5 2.5 to about 3.5 mg copper, about 4.4 to about 5.6 mg  
6 manganese, about 15 to about 18 mg zinc, about 300 to

7 about 800 IU vitamin D, about 5 to about 10 mg iron,  
8 about 400 to about 440  $\mu$ g folic acid, about 2 to about 18  
9  $\mu$ g vitamin B<sub>12</sub>, about 1.6 to about 10 mg vitamin B<sub>6</sub>, about  
10 100 to about 200  $\mu$ g chromium, about 350 to about 800 IU  
11 vitamin E, about 300 to about 1000 mg vitamin C and about  
12 10 to less than 50 mg phytoestrogen in admixture with a  
13 biologically acceptable carrier.

1 Claim 14. The dietary supplement of claim 13 which  
2 further comprises from about 1200 to about 2000  $\mu$ g RE  
3 preformed vitamin A and mixed carotenoids.

1 Claim 15. The dietary supplement of claim 13  
2 wherein said supplement is formulated in tablet, powder,  
3 liquid, capsule, patch or gel form, or dietary bar.

1 Claim 16. The dietary supplement of claim 13  
2 wherein said supplement is formulated for once daily  
3 administration.

1 Claim 17. The dietary supplement of claim 13  
2 wherein said supplement comprises about 300 to about 500  
3 mg calcium, about 150 to about 200 mg magnesium, about  
4 2.7 to about 3.3 mg boron, about 2.7 to about 3.3 mg  
5 copper, about 4.6 to about 5.4 mg manganese, about 15 to  
6 about 17 mg zinc, about 350 to about 400 IU vitamin D,

1 about 8 to about 10 mg iron, about 400 to about 420  $\mu$ g  
9 folic acid, about 2 to about 8  $\mu$ g vitamin B<sub>12</sub>, about 1.6  
10 to about 3.2 mg vitamin B<sub>6</sub>, about 100 to about 150  $\mu$ g  
11 chromium, about 350 to about 450 IU vitamin E, about 350  
12 to about 450 mg vitamin C and about 12 to about 17 mg  
13 phytoestrogen in admixture with a biologically acceptable  
14 carrier.

1 Claim 18. The dietary supplement of claim 13  
2 wherein said supplement comprises about 400 mg calcium,  
3 about 200 mg magnesium, about 3 mg boron, about 3 mg  
4 copper, about 5 mg manganese, about 15 mg zinc, about 400  
5 IU vitamin D, about 10 mg iron, about 400  $\mu$ g folic acid,  
6 about 2  $\mu$ g vitamin B<sub>12</sub>, about 1.6 mg vitamin B<sub>6</sub>, about 100  
7  $\mu$ g chromium, about 400 IU vitamin E, about 400 mg vitamin  
8 C, and about 15 mg phytoestrogen in admixture with a  
9 biologically acceptable carrier.

1 Claim 19. A series of nutritional supplements  
2 formulated for the lifestage associated nutritional needs  
3 of a woman comprising at least two of  
4 (A) a composition for preperimenopausal women  
5 comprising about 200 to about 500 mg calcium, about 100  
6 to about 200 mg magnesium, about 0.5 to about 1.5 mg  
7 boron, about 0.5 to about 1.5 mg copper, about 2 to about  
8 2.6 mg manganese, about 10 to about 13 mg zinc, about 200  
9 to about 300 IU vitamin D, about 12 to about 18 mg iron,  
10 about 400 to about 440  $\mu$ g folic acid, about 2 to about 10

11  $\mu\text{g}$  vitamin B<sub>12</sub>, about 50 to about 100 mg vitamin B<sub>6</sub>, about  
12 50 to about 100  $\mu\text{g}$  chromium, about 100 to about 200 IU  
13 vitamin E, about 100 to about 1000 mg vitamin C and about  
14 8 to less than 50 mg phytoestrogen in admixture with a  
15 biologically acceptable carrier;

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17 (B) a composition for perimenopausal and menopausal  
18 women comprising from about 200 to about 1000 mg calcium;  
19 from about 100 to about 200 mg magnesium; from about 1.5  
20 to about 2.5 mg boron; from about 1.5 to about 2.5 mg  
21 copper; from about 2.4 to about 3.6 mg manganese; from  
22 about 12 to about 15 mg zinc; from about 300 to about 400  
23 IU vitamin D; from about 10 to about 15 mg iron; from  
24 about 400 to about 440  $\mu\text{g}$  folic acid; from about 2 to  
25 about 15  $\mu\text{g}$  vitamin B<sub>12</sub>; from about 50 to about 100 mg  
26 vitamin B<sub>6</sub>; from about 75 to about 200  $\mu\text{g}$  chromium; from  
27 about 200 to about 400 IU vitamin E; from about 200 to  
28 about 1000 mg vitamin C; and from about 10 to less than  
29 50 mg phytoestrogen in admixture with a biologically  
30 acceptable carrier; and

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32 (C) a composition for post-menopausal women  
33 comprising about 200 to about 1500 mg calcium, about 150  
34 to about 250 mg magnesium, about 2.5 to about 3.5 mg  
35 boron, about 2.5 to about 3.5 mg copper, about 4.4 to  
36 about 5.6 mg manganese, about 15 to about 18 mg zinc,  
37 about 300 to about 800 IU vitamin D, about 5 to about 10  
38 mg iron, about 400 to about 440  $\mu\text{g}$  folic acid, about 2 to  
39 about 18  $\mu\text{g}$  vitamin B<sub>12</sub>, about 1.6 to about 10 mg vitamin  
40 B<sub>6</sub>, about 100 to about 200  $\mu\text{g}$  chromium, about 350 to about

41 800 IU vitamin E, about 300 to about 1000 mg vitamin C  
42 and about 10 to less than 50 mg phytoestrogen in  
43 admixture with a biologically acceptable carrier;

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45 whereby the changing nutritional needs of a woman  
46 during preperimenopause, perimenopause and menopause, and  
47 post-menopause are supplemented.

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1 Claim 20. A once daily dietary supplement for  
2 supplementing the nutritional needs of peri-menopausal  
3 and/or menopausal women comprising less than about 20 mg  
4 phytoestrogen and a biologically acceptable carrier.

1 Claim 21. The dietary supplement of claim 20 wherein  
2 the phytoestrogen is selected from the group consisting  
3 of genistin, glycitin, daidzin, malonyl daidzin, malonyl  
4 genistin, malonyl glycitin, acetyl glycitin, acetyl  
5 daidzin, acetyl genistin, genistein, glycitein, daidzein  
6 and mixtures thereof.

1 Claim 22. The dietary supplement of claim 20 wherein  
2 the phytoestrogen comprises about 4.726 mg daidzin, about  
3 1.257 mg glycitin, about 5.312 mg genistin, about 0.586  
4 mg malonyl daidzin, about 0.217 mg malonyl glycitin,  
5 about 0.510 mg malonyl genistin, about 0.670 mg acetyl  
6 daidzin, about 0.082 mg acetyl glycitin, about 0.595 mg  
7 acetyl genistin, about 0.0726 mg daidzein, about 0.062 mg

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8    glycitein, and about 0.060 mg genistein.

1            Claim 23. The dietary supplement of claim 20 wherein  
2    the phytoestrogen comprises about 31 to 35 wt% daidzin,  
3    about 8 to 10 wt% glycitin, about 36 to 40 wt% genistin,  
4    about 3 to 5 wt% malonyl daidzin, about 0.5 to 2.5 wt%  
5    malonyl glycitin, about 2.6 to 4.6 wt% malonyl genistin,  
6    about 3.7 to 5.7 wt% acetyl daidzin, about 0.1 to 1.1 wt%  
7    acetyl glycitin, about 3.2 to 5.2 wt% acetyl genistin,  
8    about 0.1 to 1.0 wt% daidzein, about 0.1 to 1.0 wt%  
9    glycitein, and about 0.1 to 0.9 wt% genistein.

1            Claim 24. The dietary supplement of claim 20 wherein  
2    the phytoestrogen is obtained from whole soybean extract.

1            Claim 25. The dietary supplement of claim 20 wherein  
2    the supplement comprises less than about 10 to about 15  
3    mg phytoestrogen.

1            Claim 26. The dietary supplement of claim 20 wherein  
2    the supplement is formulated as a tablet, capsule, patch,  
3    gel, cream, chewing gum, powder, beverage, confectionary  
4    bar or cereal.

1            Claim 27. A method for supplementing the dietary  
2    needs of peri-menopausal and/or menopausal women said

3 method comprising administering to the woman an amount of  
4 less than about 20 mg phytoestrogen per day.

1 Claim 28. The method of claim 26 wherein the amount  
2 of phytoestrogen administered is less than about 15 mg  
3 per day.

1 Claim 29. The method of claim 26 wherein the  
2 phytoestrogen is selected from the group consisting of  
3 genistin, glycitin, daidzin, malonyl daidzin, malonyl  
4 genistin, malonyl glycitin, acetyl glycitin, acetyl  
5 daidzin, acetyl genistin, genistein, glycitein, daidzein  
6 and mixtures thereof.

1 Claim 30. The method of claim 26 wherein the  
2 phytoestrogen is obtained from whole soybean extract.

1 Claim 31. The method of claim 26 wherein the  
2 phytoestrogen comprises about 4.726 mg daidzin, about  
3 1.257 mg glycitin, about 5.312 mg genistin, about 0.586  
4 mg malonyl daidzin, about 0.217 mg malonyl glycitin,  
5 about 0.510 mg malonyl genistin, about 0.670 mg acetyl  
6 daidzin, about 0.082 mg acetyl glycitin, about 0.595 mg  
7 acetyl genistin, about 0.07<sup>5J</sup><sub>6</sub> mg daidzein, about 0.062 mg  
8 glycitein, and about 0.060 mg genistein.

1           Claim 32. The dietary supplement of claim 20 wherein  
2   the phytoestrogen comprises about about 31 to 35 wt%  
3   daidzin, about 8 to 10 wt% glycitin, about 36 to 40 wt%  
4   genistin, about 3 to 5 wt% malonyl daidzin, about .5 to  
5   2.5 wt% malonyl glycitin, about 2.6 to 4.6 wt% malonyl  
6   genistin, about 3.7 to 5.7 wt% acetyl daidzin, about 0.1  
7   to 1.1 wt% acetyl glycitin, about 3.2 to 5.2 wt% acetyl  
8   genistin, about 0.1 to 1.0 wt% daidzein, about 0.1 to 1.0  
9   wt% glycitein, and about 0.1 to 0.9 wt% genistein.